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09/493,121	01/28/2000	Satoshi Miyaguchi	040782-5075-01	1823

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EXAMINER

WILLIAMS, JOSEPH L

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/493,121

Applicant(s)

MIYAGUCHI ET AL.

Examiner

Joseph L. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s).

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Prosecution Application***

1. The request filed on 20 May 2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/493,121 is acceptable and a CPA has been established. An action on the CPA follows.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Drawings***

4. Figures 4, 5A, and 5B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Haskal et al. (US 5,952,778).

Regarding claim 1, Fig. 2 as well as col. 2, line 20-col. 4, line 65 of Haskal et al. discloses an organic EL cell (no number) for preventing moisture that deteriorates the light-emitting characteristics of the organic EL cell comprising: a substrate (26); a laminate structure formed on the substrate (see col. 3, lines 10-15), wherein the laminate structure includes at least an anode (22), an organic light emitting layer (20), a

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cathode (24); a first sealing film formed on the laminate structure (32) and a second sealing film (34) formed on the first sealing film.

Regarding claim 2, Haskal ('778) discloses the first sealing film is an inorganic passivation film and the second sealing film is a resin film.

Regarding claim 3, Haskal ('778) discloses a third sealing film (36) formed on the second sealing film (34), wherein the third sealing film is an inorganic passivation film (See col. 3, lines 64-65 as well as col. 4; lines 58-65, wherein inorganic film is glass which is comprised of silicon dioxide (by definition)).

Regarding claim 4, Haskal ('778) discloses the first sealing film and the third sealing film as being  $\text{SiO}_2$  (See col. 3, lines 45-56 and 64-65, wherein glass is comprised of silicon dioxide (by definition)).

With regards to claim 9, Fig. 2 of Haskal discloses first and third sealing films.

Note- this claim recites a product-by process limitation; and for product-by process limitations, determination of patentability is based on the product itself (a first sealing film and a third sealing film) and not the process limitation (formed by vapor deposition). More specifically, if a product-by process limitation is the same as or obvious from the product of the prior art, the claim is unpatentable even though the prior product was made by a different process (See MPEP 2113). Consequently, Haskal

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discloses first and third inorganic sealing films, which are the same as the applicants' claimed sealing films.

Regarding claim 10, Haskal ('778) discloses a method for producing an organic EL cell for preventing moisture that deteriorates the light-emitting layer characteristics of the organic EL cell and that includes (similar to claim 1 above) a substrate and a laminated structure formed on the substrate, wherein the laminated structure includes at least an anode, an organic light emitting layer, and a cathode, comprising the steps of forming a first sealing film (32) on the laminate structure and forming a second sealing film (34) on the first sealing film.

Regarding claim 11, Haskal ('778) discloses the first sealing film is an inorganic passivation film and the second sealing film is a resin film.

Regarding claim 12, Haskal ('778) discloses the step of forming a third sealing film (36) formed on the second sealing film (34), wherein the third sealing film is an inorganic passivation film (See col. 3, lines 64-65 as well as col. 4; lines 58-65, wherein inorganic film is glass which is comprised of silicon dioxide (by definition)).

Regarding claim 13, Haskal ('778) discloses the first sealing film and the third sealing film as being  $\text{SiO}_2$  (See col. 3, lines 45-56 and 64-65, wherein glass is comprised of silicon dioxide (by definition)).

6. Claims 1, 5-10 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (US 6,198,217).

Regarding claims 1 and 10, Fig. 1 of Suzuki et al. discloses an organic EL cell for preventing moisture that deteriorates the light-emitting characteristics of the organic EL cell as well as a method for manufacturing the organic; EL cell, comprising: a substrate (24); a laminate structure formed on the substrate, wherein the laminate structure includes at least an anode (10), an organic light emitting layer (14), a cathode (18); a first sealing film formed on the laminate structure (20); and a second sealing film formed on the first sealing film (22).

Regarding claims 5 and 14, Suzuki et al. discloses the first sealing film (20) is resin film and the second sealing film (22) is an inorganic passivation film (See col. 5, line 49-col. 6, line 6).

Regarding claims 6 and 15, Fig. 2 of Suzuki et al. discloses the organic EL cell further comprising a third sealing film (30) formed on the second film (through an adhesive if surface is entirely flat), wherein the third sealing film is a resin film (See col. 7, lines 49-60).

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Regarding claims 7 and 16, Suzuki et al. discloses the second sealing film is selected from a group consisting of silicon nitride,  $\text{SiO}_2$ , and  $\text{Al}_2\text{O}_3$  (See col. 7, lines 28).

Regarding claims 8-9, Figs. 1 and 2 of Suzuki et al. disclose a second sealing film (22) as well as a first (20) and a third sealing film (30).

Note- claims 8-9 recite a product-by process limitation; and for product-by process limitations, determination of patentability is based on the product itself (a first sealing film, a second sealing film and a third sealing film, respectively) and not the process limitation (formed by vapor deposition). More specifically, if a product-by process limitation is the same as or obvious from the product of the prior art, the claim is unpatentable even though the prior product was made by a different process (See MPEP 2113). Consequently, Suzuki et al. discloses first, second and third sealing films that are the same as the applicants' claimed sealing films.

With regards to claim 17, col. 7, lines 20-26 of Suzuki et al. discloses the second sealing film (22) being formed by vapor deposition.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 6,198,217), of record.

Regarding claim 18, col. 6, lines 34-39 of Suzuki et al. ('217) discloses the first sealing film (20) being formed by vapor deposition.

Suzuki et al. ('217) does not specifically discuss the third sealing film (30) being formed by vapor deposition.

However, the use of vapor deposition in order to form or deposit a layer on a portion of an object is notoriously well known of common knowledge in the art, as disclosed by Suzuki et al. ('217), for the purpose of keeping moisture from depositing on the EI device during manufacturing and thus improve the lifetime of the device.

Hence, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a well known vapor deposition technique as taught by Suzuki for the first sealing layer, to form and deposit the third sealing film for the purpose of keeping moisture from depositing on the EI device during manufacturing and thus improve the lifetime of the device.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 6,198,217), of record, in view of Shibata (US 4,489,101)

Regarding claims 19 and 21, Suzuki ('217) teaches all of the claimed limitations, including the use of vapor deposition (column 7, lines 15-28), except for the specific use of the vapor deposition technique being a plasma CVD method.

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Further regarding claim 19, Shibata ('101) teaches in column 3, lines 17-35 a method of making an inorganic passivation layer comprised of, in part, using a plasma CVD method for the purpose of forming a passivation layer which has very fine dimensions and very high in dimensional accuracy.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plasma CVD method of Shibata to apply the inorganic passivation film in the device of Suzuki for the purpose of forming a passivation layer which has very fine dimensions and very high in dimensional accuracy.

Regarding claims 20 and 22, Shibata ('101) teaches in column 3, lines 29-32 that the silicon nitride is formed from a raw material gas composed only of silane and nitrogen.

The reason for combining is the same as for claims 19 and 22 above, respectively.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (703) 305-1670. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Joseph Williams  
Examiner  
Art Unit 2879  
May 29, 2003